# INTERNATIONAL SEARCH REPORT

International application No.
**PCT/AU2004/001407**

A. CLASSIFICATION OF SUBJECT MATTER

Int. Cl. [7]: **A61B 5/103**; G01L 3/00; G01L 5/00; G01C 22/00.

According to International Patent Classification (IPC) or to both national classification and IPC

B. FIELDS SEARCHED

Minimum documentation searched (classification system followed by classification symbols)

Documentation searched other than minimum documentation to the extent that such documents are included in the fields searched

Electronic data base consulted during the international search (name of data base and, where practicable, search terms used)
DWPI : IPC A61B 5/-, G01L 3/-, G01L 5/-, G01C 22/- & keywords: (ground reaction force, sensor, measure, accelerometer, 3D, athlete) and similar words
IEEE XPLORE & keywords: (ground reaction force, measure, accelerometer, shoe)
ESP@CE.NET & keywords: (ground reaction force, measure, accelerometer, shoe)

C. DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| Y | WO 2003/045239 A1 (***KONINKLIJKE PHILIPS ELECTRONICS N. V.***) 5 June 2003<br>See Entire Document | 1 – 8 |
| Y | US 6360597 B1 (***HUBBARD, Jr.***) 26 March 2002<br>See Entire Document | 1 – 8 |
| Y | US 5955667 A (***FYFE***) 21 September 1999<br>See Entire Document | 1 – 8 |
| Y | US 6301964 B1 (***FYFE et al.***) 16 October 2001<br>See Entire Document | 1 – 8 |

[X] Further documents are listed in the continuation of Box C [X] See patent family annex

* Special categories of cited documents:

"A" document defining the general state of the art which is not considered to be of particular relevance

"E" earlier application or patent but published on or after the international filing date

"L" document which may throw doubts on priority claim(s) or which is cited to establish the publication date of another citation or other special reason (as specified)

"O" document referring to an oral disclosure, use, exhibition or other means

"P" document published prior to the international filing date but later than the priority date claimed

"T" later document published after the international filing date or priority date and not in conflict with the application but cited to understand the principle or theory underlying the invention

"X" document of particular relevance; the claimed invention cannot be considered novel or cannot be considered to involve an inventive step when the document is taken alone

"Y" document of particular relevance; the claimed invention cannot be considered to involve an inventive step when the document is combined with one or more other such documents, such combination being obvious to a person skilled in the art

"&" document member of the same patent family

| Date of the actual completion of the international search | Date of mailing of the international search report |
|---|---|
| 9 November 2004 | 15 NOV 2004 |
| Name and mailing address of the ISA/AU<br>AUSTRALIAN PATENT OFFICE<br>PO BOX 200, WODEN ACT 2606, AUSTRALIA<br>E-mail address: pct@ipaustralia.gov.au<br>Facsimile No. (02) 6285 3929 | Authorized officer<br>**AMOD PRADHAN**<br>Telephone No : (02) 6283 2510 |

## INTERNATIONAL SEARCH REPORT

International application No.
**PCT/AU2004/001407**

C (Continuation). DOCUMENTS CONSIDERED TO BE RELEVANT

| Category* | Citation of document, with indication, where appropriate, of the relevant passages | Relevant to claim No. |
|---|---|---|
| Y | Aminian, K. et al., ***"Estimation Of Speed And Incline Of Walking Using Neural Network"***, Instrumentation & Measurement Technology Conference, 1994, IMTC/94, Conference Proceedings, Vol. 1, pp. 160 – 162 | 1 – 8 |
| P, Y | GAIT Analysis & Podiatry – Transducers And Instrumentation For GAIT Analysis, ***"An In – Shoe Triaxial Force Measurement System"***, Retrieved from the Internet www.medical.kent.ac.uk/research/gait/gait.html on 27 October 2004, pp. 1 – 8 | 1 – 8 |
| Y | Nishiwaki, K. et al., ***"A Six Axis Force Sensor With Parallel Support Mechanism To Measure The Ground Reaction Force Of A Humanoid Robot"***, Proceedings Of The 2002 IEEE International Conference On Robotics & Automation, Washington, DC, May 2002, pp. 2277 – 2282 | 1 – 8 |
| A | Masani, K. et al., ***"Variability Of Ground Reaction Forces During Treadmill Walking"***, Journal Of Applied Physiology (2002), Vol. 92, pp. 1885 – 1890 | |
| P, A | Clayton. H, et al., ***"Measurement Techniques For GAIT Analysis"***, Retrieved from the Internet on 8 November 2004, pp. 55 – 76 | |

## INTERNATIONAL SEARCH REPORT

Information on patent family members

International application No.
**PCT/AU2004/001407**

This Annex lists the known "A" publication level patent family members relating to the patent documents cited in the above-mentioned international search report. The Australian Patent Office is in no way liable for these particulars which are merely given for the purpose of information.

| Patent Document Cited in Search Report | | Patent Family Member | | | | | |
|---|---|---|---|---|---|---|---|
| WO | 2003/045239 | US | 6807869 | EP | 1450685 | US | 2003097878 |
| US | 6360597 | AU | 19417/01 | AU | 59122/98 | CA | 2277427 |
| | | EP | 0951409 | US | 5821633 | US | 6223606 |
| | | US | 6546813 | US | 2001020395 | US | 2003136201 |
| | | WO | 2001/039655 | WO | 1998/030420 | WO | 2002/068921 |
| US | 5955667 | CA | 2218242 | CA | 2312640 | EP | 1066793 |
| | | US | 6301964 | US | 6513381 | US | 2002040601 |
| US | 63301964 | CA | 2218242 | CA | 2312640 | EP | 1066793 |
| | | US | 5955667 | US | 6513381 | US | 2002040601 |

Due to data integration issues this family listing may not include 10 digit Australian applications filed since May 2001.

END OF ANNEX